

## Excel 2007 Cheat Sheet

Here's how to find your way around and get the most out of Excel 2007

Preston Gralla and Richard Ericson

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If you're a full-time spreadsheet jockey, or just a casual number-cruncher, you've come to know and either love or hate Excel's interface. Well, your world just changed. Throw away almost everything you know about Excel's look and feel. Microsoft Corp. made some very dramatic changes in Excel 2007.

The good news is that you should welcome most of the changes, because they make it easier to get at all of Excel's power. The bad news is that you're going to have to learn how to use the application again.

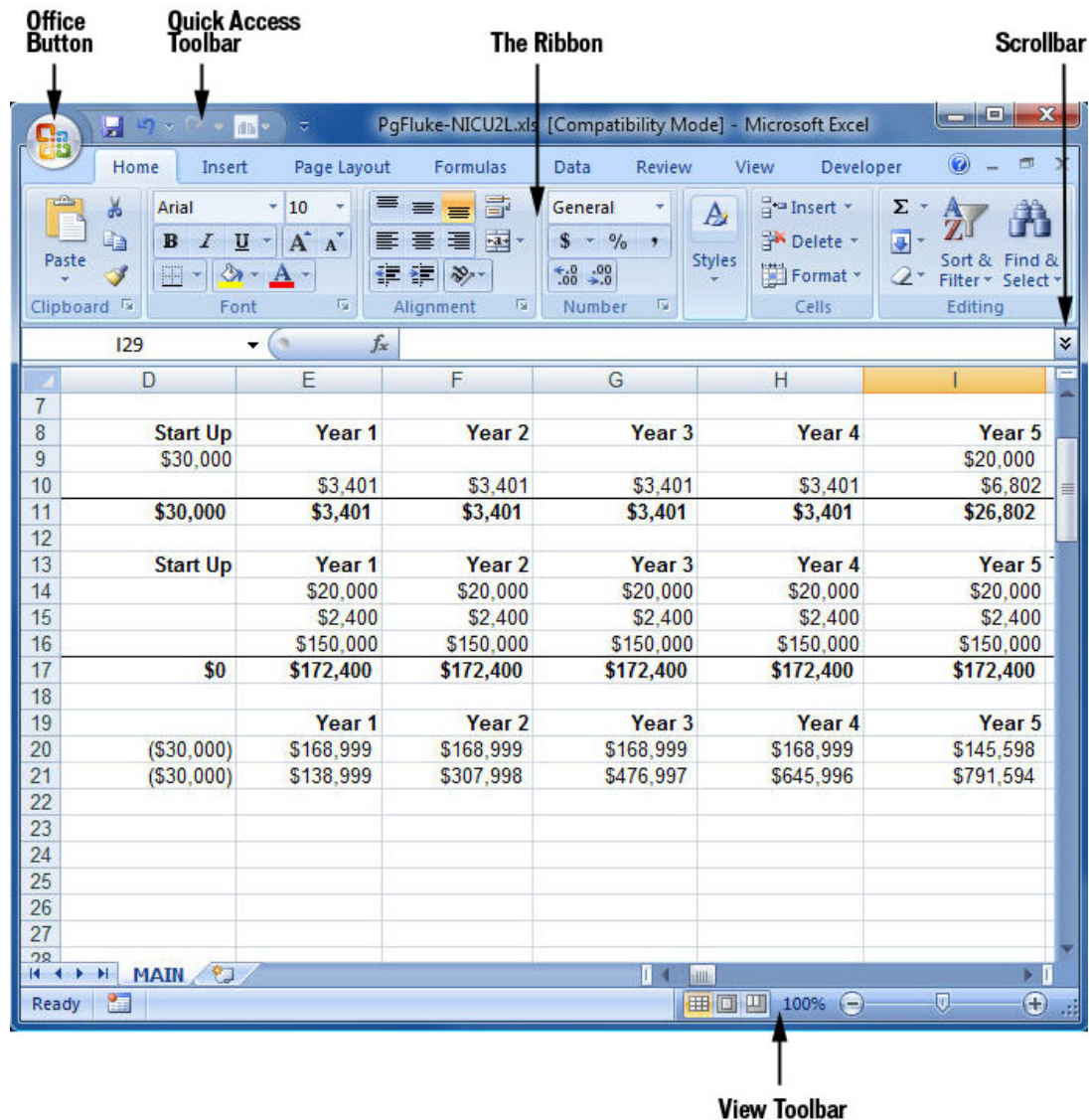
That's where we come in. We'll give you a guided tour of the new interface, show you what's new and what's the same, and offer tips and tricks for getting the most out of Excel 2007.

So come along with us, and you'll find yourself creating charts and crunching numbers in no time at all.

### Get the lay of the land

The Excel 2007 interface represents possibly the biggest change Microsoft has made to the look and feel of the program and to how you get at its myriad features. No matter what you do -- from opening files or adding formulas to creating charts or even just using a menu -- you'll find things have changed.

Here's a quick guided tour to the Excel 2007 interface:



The Excel 2007 interface. [Click to view larger image.](#)

**The Microsoft Office button.** The big button on the upper left-hand corner of the screen replaces the old File menu from previous versions of Excel. You'll find familiar features for opening files, saving files, printing files and so on, but there's a lot more here as well, as you'll discover later in this guide.



**The Quick Access toolbar.** Just to the right of the Office button is the Quick Access toolbar, with buttons for using Excel's most common features, including Save, Undo, Redo, Sort, Print Preview and more, but you can add and remove buttons for any functions you please. More on that later.



**The Ribbon.** Love it or hate it, the Ribbon is the main way you'll work with Excel. Instead of old-style menus, in which menus have submenus, submenus have sub-submenus and so on, the Ribbon groups small icons for common tasks together in tabs on a big, well, ribbon. So, for example, when you click the Insert tab, the Ribbon appears with buttons for items that you can insert into a spreadsheet, such as charts, tables, pivot tables, clip art or a hyperlink.

If you've spent years getting to know Excel's old interface, you'll likely be frustrated at having to learn a whole

**In this series**

new interface. But even if you hate the Ribbon initially, it can be your friend; check out the section [Learn to love the Ribbon](#) for details.

**The Scrollbar.** This is largely unchanged from previous versions of Excel; use it to scroll up and down. There are a couple of minor changes. At the top, there's a double arrow that when clicked upon, expands the area at the top of the worksheet that displays the contents of the current cell. Just below the double arrow is a tiny button that looks like a minus sign that lets you split your screen in two.

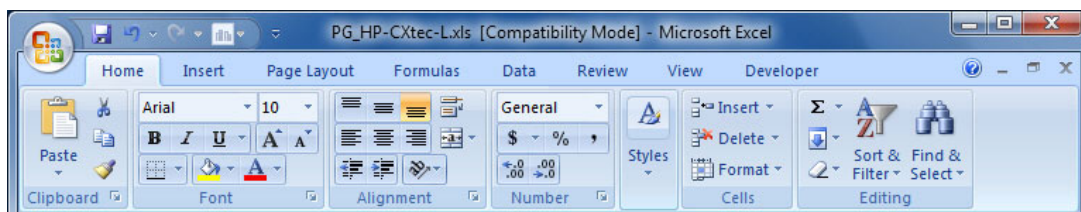


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**The View toolbar.** There is now a View toolbar at the bottom right of the screen that lets you choose between Normal, Page Layout and Page Break Preview -- a view that will show you how your spreadsheet will look when it prints. There's also a slider that lets you zoom in or out of your document.

## Learn to love the Ribbon

At first, the Ribbon may be offputting. But the truth is, once you learn to use it, you'll find that it's far easier to use than the old Excel interface. It does take some getting used to, though.



The Ribbon. [Click to view larger image.](#)

The Ribbon, by default, is divided into seven tabs, with an optional eighth one (Developer) that you can display by clicking the Office button and choosing Excel Options > Popular > Show Developer tab in the Ribbon.

Here's a rundown of the tabs and what each one does:

**Home:** This contains commonly used Excel features, such as inserting formulas, formatting tables, rows, cells and text, and sorting and filtering.

**Insert:** As you might guess, this one handles anything you might want to insert into a document, such as charts, pivot tables, tables, pictures, clip art, text, WordArt ... well, you get the idea.

**Page layout:** Here's where you'll change margins, page size and orientation, define your print area, set page breaks, specify which rows and columns will print on each page and so on.

**Formulas:** If you're a spreadsheet jockey, you'll be spending a lot of time on this tab. As the name says, it's where you'll go to insert and work with formulas. It organizes all of Excel's formulas into categories, such as Financial, Logical, Math & Trig, and so on, so they're all within easy reach. And it also gives you quick access to useful formula-checking features, such as error-checking and the ability to trace precedents and dependents.

**Data:** Whatever you need to do with data, you'll find it here. For example, you can use this tab to import data from a wide variety of sources, including the Web, Access, SQL Server and so on.

You'll also be able to filter and sort data, validate your data, group and ungroup data, and perform data analysis, among other features.

**Review:** Need to check spelling and grammar, look up a word in a thesaurus, work in markup mode, review other people's markups or compare documents? This is the tab for you. It also lets you protect worksheets and workbooks, and share workbooks.

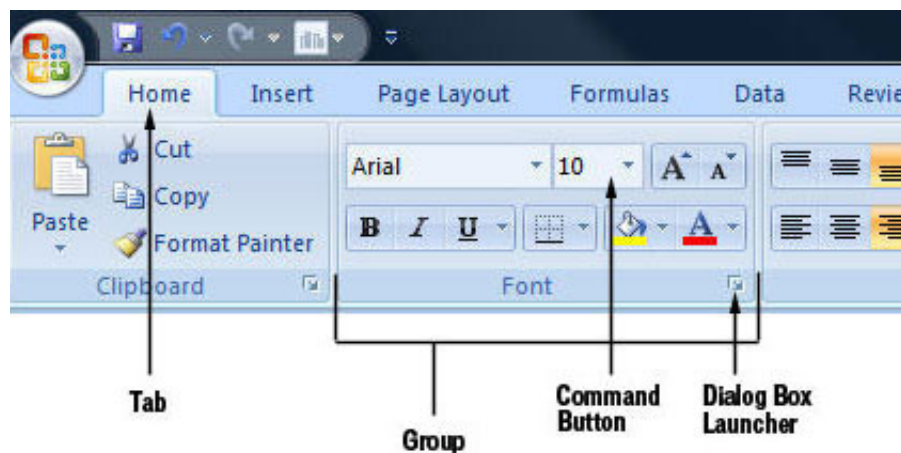
**View:** Here's where to go when you want to change the view in any way, including displaying or turning off gridlines and the formula bar, zooming in and out, splitting and hiding panes, and so on.

**Developer:** If you write code or create forms and applications for Excel, this is your tab. It also includes macro handling, so power users might also want to visit here every once in a while.

Each tab along the Ribbon is organized to make it easy to get your work done. As you can see below, each **tab** is organized into a series of **groups** that contain related commands for getting something done -- in our example, handling fonts.

Inside each group is a set of what Microsoft calls **command buttons**, which carry out commands, display menus and so on. In the example, the featured command button changes the font size.

There's also a small diagonal arrow in the bottom right corner of some groups that Microsoft calls a **dialog box launcher**. Click it to display more options related to the group.

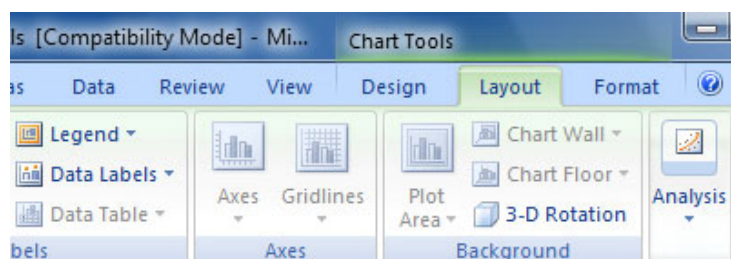


Ribbon organization.

All that seems simple enough ... so it's time to throw a curveball at you. The Ribbon is context-sensitive, changing according to what you're doing. Depending on the task you're engaged in, it sometimes adds more tabs and subtabs.

For example, when you insert and highlight a chart, several entirely new tabs appear: Design, Layout and Format, with a Chart Tools supertitle on top, as you can see in the image to the left.

Other "now you see them, now you don't" tabs include Picture Tools, Table Tools and SmartArt Tools -- all of which



The Chart Tools -- Design, Layout and Format tabs appear only when you need them. [Click to view larger image.](#)

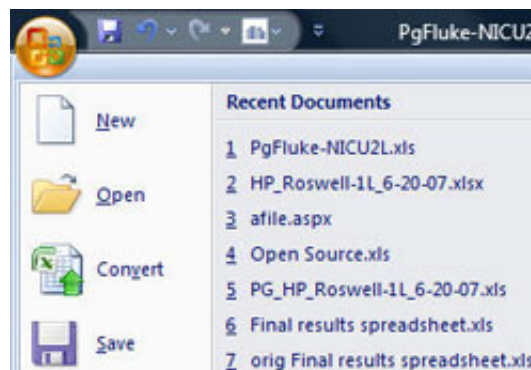


appear in response to various actions you take in Excel.

## The Office button and Quick Access toolbar: Your new best friends

There are two more new Excel tools that you'll want to get to know -- the Office button and the Quick Access toolbar. Think of the Office button as a greatly expanded File menu from the Excel 2003 days -- the File menu on steroids. As you can see in the figure below, it's where to go for the various Open, Save, New, Print and related options and also includes a list of all your recently opened files.

But there are three particularly noteworthy new features here as well -- Prepare, Publish and Convert. Convert lets you convert documents saved in older formats to the new Microsoft Office Open XML format, which is the new Office standard. For Excel, the extension is .xlsx. Publish does exactly what it says; it gives options for publishing a document. If your company uses a document management server or SharePoint, you can publish it there.

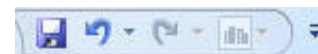


Clicking the Office button reveals everything the File menu used to, and more. [Click to view larger image.](#)

Use Prepare when you've finished your worksheet and are ready to share it with others. There are plenty of great options here, such as marking a document as final; encrypting the document; inspecting it for hidden metadata and information you'd prefer remain private; and adding a digital signature. Because Excel 2007 isn't yet widely deployed, a particularly useful feature here is running the Compatibility Checker, which will let you know whether the worksheet contains features not supported by earlier Excel versions.

For those who like to fiddle with the Excel interface and how it works, the Excel Options button, located at the bottom of the Office button's box, lets you customize Excel in many ways, including how you work with formulas, and rules for error-checking worksheets. It has many of the features that you accessed via Tools > Options in previous versions of Excel, plus more. It's far better organized and easier to use than Tools > Options was.

Even those who can't stand the Excel makeover and the Ribbon will find at least one thing to cheer about -- the Quick Access toolbar. This nifty little tool seems innocuous enough, but spend some time with it and you'll see it's one of the best additions to the new interface.



The three buttons on the left -- Save, Undo and Redo -- aren't particularly noteworthy, but the small icon to the right that looks like a small chart -- the Quick Layout button -- is exceedingly useful. Highlight a chart, click the button and a selection of premade chart layouts appear. Click the one you want, and it will immediately be applied to the chart.

Probably the most helpful customization for Excel 2007 is to add buttons the Quick Access toolbar, and there are several ways to do so. Directly to the right of the Quick Layout button, the nearly invisible Down arrow is the key to the Quick Access toolbar. Click it and you'll be able to add and remove toolbar buttons for a preset list of about 10 commands.

To add buttons for additional commands, select More Commands from this list. The screen

below appears. (You can also get to this screen by clicking the Office button and choosing Excel Options and then Customize.)

Choose a command from the left-hand side of the screen that you want to add to the Quick Access toolbar and click Add. You can change the order of the buttons by highlighting a button on the right side of the screen and using the Up and Down arrows to move it.

The list of commands you see on the left may seem somewhat limited at first. That's because Excel is showing you only the most popular commands.

There are plenty of others you can add.

Click the drop-down menu under

"Choose commands from" at the top of

the screen, and you'll see other lists of commands -- All Commands, Home Tab and so on.

Select any option, and there will be plenty of commands you can add.

Finally, there's an even easier way to add a command. Right-click any object on the Ribbon and choose "Add to Quick Access toolbar." You can add not only individual commands in this way, but also entire groups -- for example, the Cell Styles group.

Once you've got the Quick Access toolbar customized to your liking, you will hardly ever have to use the Ribbon.

## Six tips for working with Excel 2007

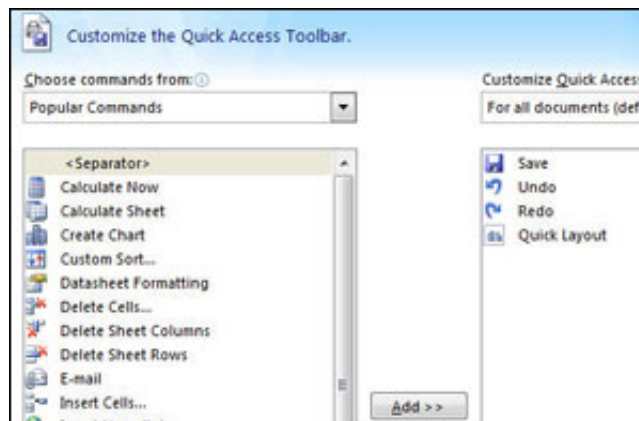
If you're a longtime Excel user, you no doubt have accumulated a set of shortcuts and customizations. Many of those have gone away under Excel 2007. But fear not, because there are plenty of ways for you to bend Excel 2007 to your will. Here are some tips to get you started.

### 1. Turn off the Ribbon.

Here's what may be the best tip you'll ever come across for Excel 2007 -- how to turn off the Ribbon. Doing this will get you back plenty of screen real estate, as you can see in the screenshot.

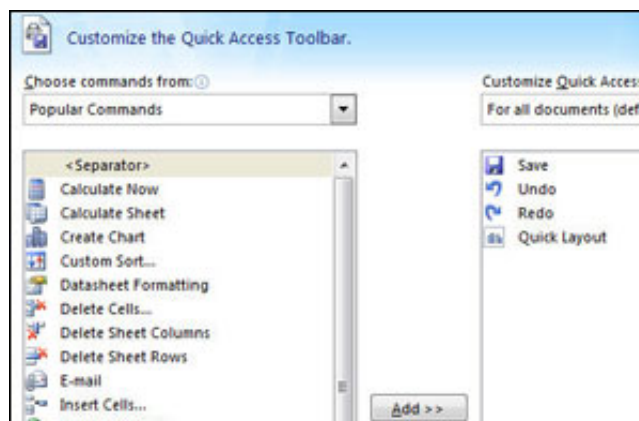
The Ribbon will still be available when you want it -- all you need to do is click on the appropriate menu (Home, Insert, Page Layout and so on) and it appears. It then discreetly goes away when you are no longer using it.

There are several ways to turn off the Ribbon:



Adding buttons to the Quick Access toolbar.

[Click to view larger image.](#)



It's easy to make the Ribbon disappear and reappear.

[Click to view larger image.](#)

- Click the Down arrow to the right of the Quick Access toolbar button and select Minimize the Ribbon.
- Press Ctrl-F1. (Press Ctrl-F1 to make it appear again.)

- Double-click the current tab above the Ribbon.

## 2. Get your old Excel 2003 toolbars back.

Say you've given the Ribbon a fair shake and you just can't stand it. Although Microsoft doesn't provide a way to get the old Excel 2003 interface back, a couple of third-party tools, [Classic Menu](#) and [ToolbarToggle](#), do. See [Hands on: Show Office 2007 who's the boss](#) for details.

## 3. Customize the Ribbon.

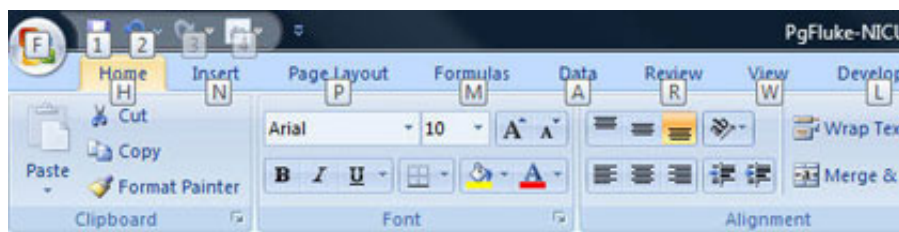
Maybe you mostly like the Ribbon, but some of the commands aren't located where you'd like them to be. Another third-party program called [RibbonCustomizer Pro](#) lets you create new Ribbon tabs or customize existing ones the way you like them.

It's a powerful way to take advantage of the Ribbon's interface while asserting control over what commands appear where. Again, see [Hands on: Show Office 2007 who's the boss](#) for more information.

## 4. Use keyboard shortcuts.

If you're a fan of Excel 2003's keyboard shortcuts, take heart -- most of them still work in 2007. So keep using them.

You can also use a clever set of keyboard shortcuts for working with the Ribbon. Press the Alt key and a tiny letter or number icon appears on the menu for each tab -- for example, the letter H for the Home tab.



Using the Alt key helps you master the Ribbon.

Now press that letter on your keyboard, and you'll display that tab or menu item. When the tab appears, there will be letters and numbers for most options on the tab as well.

Once you've started to learn these shortcuts, you'll naturally begin using key combinations. So instead of pressing Alt then H to display the home tab, you can press Alt-H together.

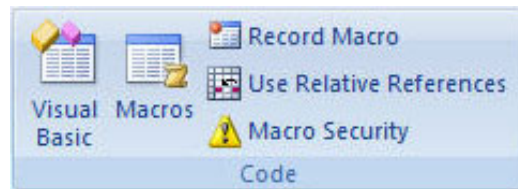
The table to the right shows the most useful Alt key combinations in Excel 2007.

Excel 2007 Alt key combinations	
Key combination	Function
Alt-F	Office button
Alt-H	Home tab
Alt-N	Insert tab
Alt-P	Page Layout tab
Alt-M	Formulas tab
Alt-A	Data tab
Alt-R	Review tab
Alt-W	View tab
Alt-L	Developer tab

## 5. Use macros.

At first glance, macros -- ingenious shortcuts you can create for performing repetitive tasks -- seem to have been banished from Excel 2007. But they're still there; display the Developer tab, and you'll find them in all their glory. In fact, the Developer toolbar puts the macro tools at easier reach than they were in previous versions of Excel.

You'll find everything you want in the Code group on the Developer tab. Record a macro by clicking the Record Macro button, manage your macros by clicking the Macros button and configure security for macros by clicking the Macro Security button.



All your macro controls are in the Code group on the Developer tab.

Any macros you created in previous versions of Excel should work fine in Excel 2007. See Microsoft's [Office Online site](#) for more information about working with macros in Excel 2007.

#### 6. Find your old friends.

In Excel 2007, no features or functions are where they used to be. But it's easy to find them. Use our [Excel 2007 quick reference charts](#) for an extensive list of where to find your old friends.

### New features in Excel 2007

In Excel 2007, more is truly better. Microsoft has increased the number of columns per spreadsheet (and per PivotTable) to 16,384 (up from 256) and the number of rows to 1,048,576 (up from 65,536). Other limits have been also expanded: Text cells can now contain more than 32,000 characters (up from 255).

Chances are you'll never reach other new limits: PivotTables can manipulate more than 16,000 fields (up from an already generous 255), and formulas can now refer to up to 8,000 cells (memory permitting), so it's fortunate that Excel 2007 lets you drag the corner of the formula bar to expand it.

Excel 2007's memory manager can handle 2GB (double the amount in Excel 2003), so calculations execute faster. The new version also takes advantage of dual-core processors and multithreaded chip sets, so if you're lucky enough to be running it on a machine with either feature, expect a noticeable speed boost.

#### New visualization tools

Charts and graphs now support 16 million colors, and improved color support is evident throughout this version, especially in several new visual tools for highlighting data. For example, in Excel 2007 you can use conditional formatting to set the background color of a cell or use a colored bar (called a data bar) -- the length corresponds to the cell's value.

You can also add icons to cells based on their value, giving your worksheet a dashboard-like quality. For example, assigning traffic-light icons to a range of cells is a snap, and Excel's built-in logic assigns colored circles based on the value of the cell: green for the highest third, yellow for the middle third and red for the bottom third.



	A	B
1	Monthly Sales (\$ 000)	Jan
2	Cabbage, Green	6
3	Cabbage, Red	3
4	Kale	2
5	Lettuce, Bibb	7
6	Lettuce, Green	15
7	Lettuce, Head	22
8	Lettuce, Red	17
9	Lettuce, Romaine	4

You can add colored bars to indicate the value in a cell (left) or apply a three-icon set to indicate which third data falls into (right).

Similarly, a four- or five-icon set (such as set of vertical bars similar to what your cell phone uses to indicate signal strength) displays icons based on which quartile or quintile the value falls into.

In all cases, you can control the ranges for each icon in the set -- allowing you, for instance, to use a green traffic light to indicate only the highest 10% of values.

Display each icon according to these rules:

Icon	Value	Type
●	when value is <input type="text" value="67"/> <input type="button" value="OK"/>	<input type="text" value="Percent"/>
●	when < 67 and <input type="text" value="33"/> <input type="button" value="OK"/>	<input type="text" value="Percent"/>
●	when < 33	

Conditional formatting rules are easy to adjust. [Click to view larger image.](#)

### Better sorting and filtering

Sorting data -- previously limited to three levels -- has been expanded to 64 levels. Best of all, while you can still sort data based on values (to sort a date column chronologically, for instance), you can also sort by font, color or icon used with conditional formatting. Thus, you can display all your green traffic lit cells together, followed by the yellow lights, then the red.

Column	Sort On
Sort by <input type="text" value="Monthly Sales (\$ 000)"/>	<input type="text" value="Cell Icon"/>
Then by <input type="text" value="Jan"/>	<input type="text" value="Values"/>

You can sort by value or the icon used in conditional formatting. [Click to view larger image.](#)

Other visualization tools eliminate the need for complicated macros or formulas. New conditional formatting options let you highlight duplicates, unique values, the top/bottom 10%, values above or below the average, cells less than or greater than a specified value, or cells within a range (highlighting cells containing values between 1 and 10, for example).

If you don't need to see all values, the vastly improved Filter feature puts check boxes (for up to 1,000 values) in a pull-down list, allowing you to easily pick multiple values to display. Likewise, the new Remove Duplicates feature hides rows based on the duplicate values in columns you specify.

### Working with PivotTables

Among the notable improvements in Excel are tools to make existing features easier to use. Take PivotTables, for example.

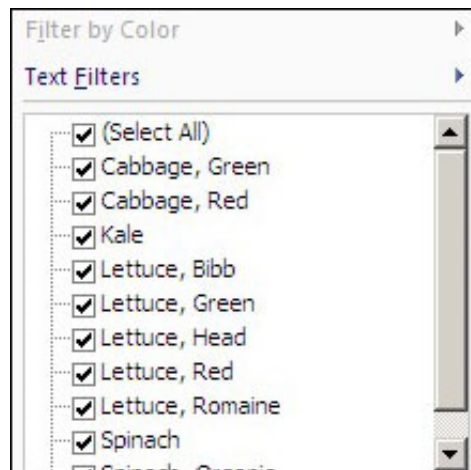
(For the uninitiated, PivotTables allow you to view your data differently -- think "slice and dice." For example, you can summarize sales by agent by month or, with a simple drag-and-drop motion, summarize sales by month and within month by agent.)

In Excel 2007, you still set up PivotTables using a wizard, which is slightly changed from Excel 2003.

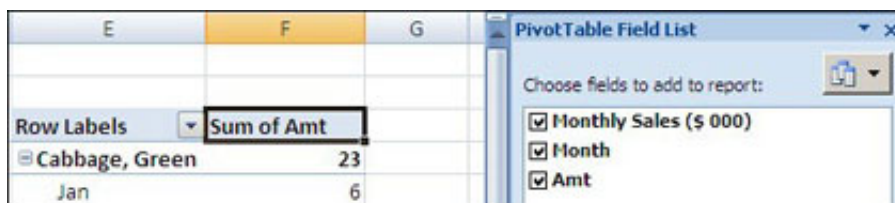
However, once you have a PivotTable defined, manipulating it is considerably easier.

Instead of dragging and dropping elements within the table itself, you can use the wizard to make choices -- checking boxes to select which fields to display or choose sorting options, for example. Excel 2007 makes it easier to switch columns and rows, filter values, and use or hide field names.

In addition, conditional formatting (those data bars or traffic lights we mentioned) can be applied to cells displayed in PivotTables.



The new Filter feature offers check boxes to let you pick which rows you want to see.

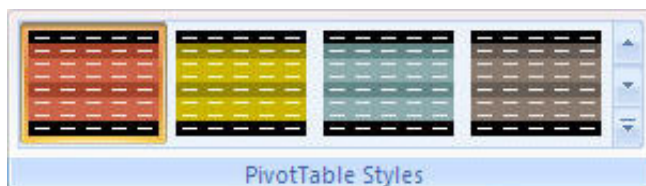


PivotTables are easier to use, thanks to a new PivotTable panel. [Click to view larger image.](#)

## Styles and Themes

One of the promises of the Ribbon interface, according to Microsoft, is that some features are more obvious and usable. That's certainly true of Styles, a formatting tool from previous versions of Excel that is now available using a "gallery" interface introduced in Office 2007.

You can quickly apply a collection of settings, from the font used to the background color and border style to cells, tables and PivotTables. As you mouse over the choices, Excel 2007 applies each style to your selection so you can preview the effect without making the change permanent.



Choose a style from the gallery and see it applied to your selection. [Click to view larger image.](#)

One particularly noteworthy improvement to formatting is how Styles now respond to changes within your worksheet. In Excel 2003, you could apply a "green bar" effect so that the background color in rows alternated between green and white. However, once you added a row, the pattern was interrupted, and you needed to reapply the AutoFormat, a clumsy and awkward

the pattern was interrupted, and you needed to reapply the filter, format, a theme, and a similar procedure.

In Excel 2007, that same pattern is adjusted whenever you add one or more rows. (Styles are equally smart when you add columns, for patterns that alternate between columns.) Styles will even adjust when you filter or hide rows or columns.

Themes, new to Office 2007, are style collections that include a color scheme, font, fill effects and more. Shared by several Office 2007 applications, themes can be applied to charts, tables and PivotTables in Excel, giving your work a consistent look and feel. That's especially useful when you're creating a chart that you want to copy to PowerPoint or Word.

To use Themes, select the Page Layout tab and click the Themes button to choose a new theme. You can also customize any theme or create new ones. One important caveat: Be aware that Themes only work if you're using Word's new Office XML format; they won't work on old-style .xls files.

The Ribbon interface also makes it more enjoyable to work with charts. Excel's charts have a whole new look, thanks to the new graphics engine in all Office 2007 applications. The layouts use different color palettes and fonts, but the important difference is the ability to more easily apply graphical effects, such as bevels and shadows, to individual elements (such as columns or pie slices).

The Ribbon has a Chart Tools group (with tabs for Design, Layout and Format) to put more charting options at your fingertips and eliminate most of the right-clicking you had to do to adjust charts in previous versions: switching rows and columns, controlling gridlines and axes, and adding trend lines.

#### Table tools

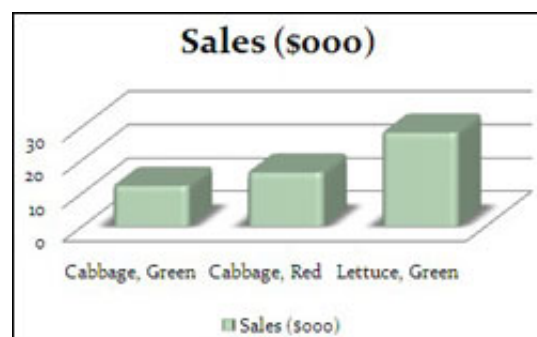
Excel's new table features make it less likely you'll have inconsistent formulas.

Once you identify a contiguous range of cells as a table, Excel provides calculated columns. For example, if you add a column to the right of your table and enter a formula in any row, the formula will be copied to all cells in that new column, saving the time of executing a copy/paste command.

Even smarter, add a row and Excel is sure to include it in a total on the bottom row. (In previous versions of Excel, adding a row at the top or bottom of a range meant you risked omitting cells in that row from the sum formula.)

	A	B
1	Monthly Sales (\$ 000)	Month
2	Cabbage, Green	Jan
3	Cabbage, Green	Feb
4	Cabbage, Green	Mar
5	Cabbage, Red	Jan
6	Cabbage, Red	Feb
7	Cabbage, Red	Mar
8	Lettuce, Green	Jan

A table with the Equity theme applied.



With Excel's new charting engine, you can control everything about charts, from shadows to the amount of rounding on the corners of bars and columns.

<b>Total</b>		<b>68</b>	<b>34.4733</b>
			None
			Average
			Count
			Count Numbers
			Max
			Min

Working with a Total row. [Click to view larger image.](#)

Furthermore, options on the Table Tools Design context-sensitive tab let you toggle the formatting of the first column or the first row. One click and you can add a Total row (though Excel lacks a similar command to add a Total column), then change what each column in that row computes (total, average, minimum and so on).

In addition, as you scroll down through a lengthy table, Excel replaces the column headings (the gray boxes with A/B/C above the columns) with values from the table's header row -- a subtle improvement, to be sure, but it's a more efficient technique than having to freeze rows to see column headings.

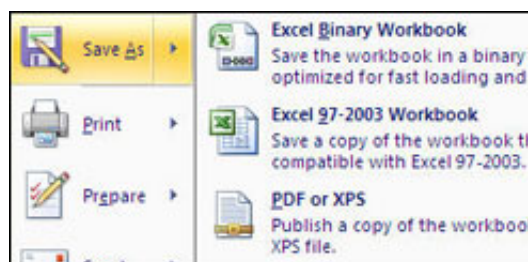
Finally, the new Table Gallery makes it easy to select and apply a sophisticated look.

#### Other changes

There are dozens of other small changes in Excel 2007. Among the 51 new functions are some to fetch data from OLAP cubes, calculate Bessel functions (for engineers), convert numbers (decimal to binary, hex to octal and so on) and work with complex numbers (calculating the square root or sine of a complex number, for example).

Two new functions, SUMIFS and AVERAGEIFS, let you choose cells that meet multiple conditions without having to use nested functions. Speaking of nesting, should you need it, the number of nesting levels has increased, from seven in Excel 2003 to 64.

The new Name Manager helps you organize and manage your named ranges. Other changes keep Excel's user interface consistent with Word and PowerPoint. SmartArt is shared across Office 2007 applications, and as with Word, it's now easy to save a document to PDF or XPS format, or to a SharePoint library directly from Excel.



Saving a document in PDF or XPS format is now possible through the Office button.

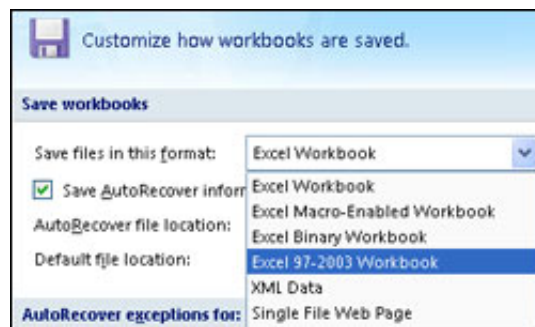
If you use PowerPoint to build charts, you'll find that its old graphics tool (MSGraph) has been replaced by Excel's charting and worksheet engine, a long overdue improvement.

#### Staying compatible

You'll have to deal with four new XML-based file formats in Excel 2007 -- .xlsx for standard worksheets, .xlsm for those with macros, plus .xltx and .xltm for templates. Like Word 2007, Excel 2007 offers a compatibility checker and tells you if your workbook contains features that previous versions of Excel won't support. Choose Office button > Prepare > Run Compatibility Checker to launch it.

If you're sharing documents, you'll probably want to save them in Excel 2003 format to maintain compatibility with other users -- at least until the new 2007 file format becomes the standard or you know your recipient has the [free patch](#) that lets Office 2003 users read and work with 2007 files.

To set Excel 2007 to save to the 2003 format by default, click on the Office button and then the Excel Options button. In the left panel of the screen that appears, click Save, then locate the "Save workbooks" area on the right. From the "Save files in this format" drop-down list, choose Excel 97-2003 Workbook and click OK.



Setting the default Save format. [Click to view larger image.](#)

As we've shown you, Excel 2007 is chock full of new features, some of which may initially drive you crazy. But armed with our cheat sheet and a little elbow grease, you'll be up and running -- and quite possibly loving the new Excel -- in no time.

**Preston Gralla** is a contributing editor for Computerworld, and the author of more than 35 books, including [Windows Vista in a Nutshell](#). **Richard Ericson** is the reviews editor for [The Office Letter](#), a weekly newsletter devoted to Microsoft Office tips and tricks.

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